

REMARKS

Claims 53-82 remain pending in the application. Upon entry of the present amendment, claims 53-55, 61, 67-69, 72, 73, 75 and 79-82 will be amended. Entry of the present amendment, reconsideration of the rejection and allowance of the pending application in view of the following remarks are respectfully requested.

As an initial matter, Applicants would like to express their appreciation to the Examiner for the interview held on August 16, 2005. During the interview, Applicants' representative argued that White et al. (U.S. Patent No. 5,603,031) does not disclose deleting, adding or replacing execution states, as currently recited in independent claims 53 and 79. Applicants' representative also argued that White does not disclose changing the functionality of a process prior to resuming the process on a second computer component, as recited in independent claims 81 and 82. The Examiner was unable to clearly point out how these features are disclosed in White.

During the interview, Primary Examiner Anil Khatri suggested that Applicants amend the claims to replace the terms "computer components" with other claim language, and amend the claims to replace the "and/or" language with "at least one of".

Upon entry of the present amendment, the claims will have been amended in accordance with the Examiner's suggestions. Although Applicants appreciate the Examiner's suggestions, Applicants submit that since such objection to the claims was not made by the Examiner until the application was after-Final, it would be inappropriate for the Examiner to deny entry of the present amendment on the grounds that incorporation of the Examiner's suggestions into the claims raises new issues requiring

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further consideration and/or search.

In the Office Action, the Examiner rejected claims 53-82 under 35 U.S.C. §102(b) as being anticipated by White et al. Applicants respectfully traverse the rejection for at least the following reasons.

The present invention is directed towards a computing environment which includes a plurality of operating environments, and a method of operating a computer process within the computing environment. Each of the operating environments is suitable for running a process. According to one aspect of the invention, the computing environment supports evolution of the process by selective deletion, addition and replacement of execution states within the process, thereby changing the functionality of the process. According to another aspect of the invention, the process is transmitted from a first operating environment to a second operating environment, and the process is evolved or modified by selective deletion, addition, or replacement of objects from within the process, thereby changing the functionality of the process, prior to the process resuming operation on the second operating environment.

An objective of the present invention is to create execution states that are first class entities, like data and program code, so that a computing process can manipulate its execution states. Advantages of this invention are discussed, at, for example, page 6 of Applicant's specification. In particular, evolution of a computing process manipulates the execution states, and not data or program code. This is specified in, for example, the last paragraph of claim 53 (using claim 53 as an example).

Applicants submit that White is directed towards a distributed computing

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environment. White discloses a process whereby an agent 150A, executing within a first computer system 120A, is transferred to a second computer system 120B. See col. 24, line 45 – col. 25, line 30. Before it is transferred to the second computer system 120B, the agent owns object 140B. See col. 24, lines 55-56. In the example disclosed by White, object 140B has a digest 622, which indicates that object 140B is interchangeable. See col. 24, lines 57-60. After agent 150A is transferred to the second computer system 120B, and once an interchangeable object equivalent to object 140B is found within second computer system 120B, object 140B can be deleted from first computer system 120A. See col. 25, lines 6-9 and 23-25.

In the Office Action, the Examiner asserted that deletion of object 140B from computer system 120A corresponds to Applicants' claimed selective deletion of execution states from within the process. Applicants respectfully disagree.

Applicants respectfully submit that White's object 140B does not include execution states. The Examiner is referred to col. 8, lines 1-6, for example, which provides that "the computer process, the preserved execution state, and objects owned by the computer process are packaged", thus suggesting that execution states and objects are separate entities. Thus, Applicants submit that deletion of an object does not correspond to selective deletion of execution states from within a process, as taught by Applicants' invention.

White also discloses that an agent is capable of creating one or more clone processes of the agent and transporting each clone process to a place. See col. 25, lines 30-32. In the Office Action, the Examiner asserted that this corresponds to

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Applicants' claimed selective addition of execution states into a process. Applicants respectfully disagree.

White discloses, in col. 25, lines 36-42, that each clone is identical to the original agent, and includes an execution state identical to that of the original agent. Thus, Applicants submit that there is no selective addition of execution states into the agent to change the functionality of the agent when a clone is created.

White also discloses, in col. 7, line 66 – col. 8, line 6, that to transport a computer process, the execution state of the computer process is preserved, and packaged with instructions of the computer process into a string of data. Once the string of data is transported to a destination computer system, the string of data is decoded to generate a computer process, and the instructions of the computer process are executed by the destination computer system to perform complex operations, including defining, creating and manipulating data objects and interacting with other computer processes executed by the destination computer system. See col. 8, lines 11-22. In the Office Action, the Examiner asserted that this corresponds to Applicants' claimed selective replacement of execution states. Applicants respectfully disagree.

In col. 7, line 66 – col. 8, line 1, White discloses that the execution state of the computer process is preserved before transportation to the destination computer system. In col. 22, lines 9-36, White discloses the operation of transporting a computer process to a destination computer system in more detail. White specifically discloses that upon performance of a "go" operation by an agent 150A, the execution of the agent 150A is suspended and the execution state of the agent 150A is preserved. See col.

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22, lines 15-18. After the agent is transported to a destination computer system 120B, execution of the agent 150A is resumed due to preservation of the execution state.

See col. 22, lines 15-21 and 32-36.

Thus, Applicants respectfully submit that White fails to disclose or suggest evolving or modifying a process by selective deletion, addition or replacement of execution states within the process, thereby changing the functionality of the process, as recited in independent claims 53 and 79. For at least these reasons, Applicants respectfully submit that the 35 U.S.C. § 102(b) rejection of independent claims 53 and 79 are improper, and request withdrawal of the rejection.

Dependent claims 54-78 and 80 are also submitted to be in condition for allowance for at least the same reasons as set forth above with respect to independent claim 53.

Applicants respectfully submit that White also fails to disclose or suggest evolving or modifying a process by at least one of selective deletion, addition, or replacement of objects from within the process, thereby changing the functionality of the process, prior to the process resuming operation on a second operating environment, as recited in independent claims 81 and 82. As noted above, White discloses that after an agent 150A is transported to a destination computer system 120B, execution of the agent 150A is resumed. See col. 22, lines 15-21 and 32-36. Applicants submit that the Examiner has not cited any portion of White which discloses that the agent is evolved to change its functionality, prior to resuming execution.

For at least these reasons, Applicants submit that the 35 U.S.C. § 102(b)

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rejection of independent claims 81 and 82 is improper, and request withdrawal of the rejection.

Based on the above, it is respectfully submitted that this application is now in condition for allowance, and a Notice of Allowance is respectfully requested.

SUMMARY AND CONCLUSION

Applicants recognize that the status of the present applicant is after Final. However, Applicants respectfully submit that entry of the present amendment is appropriate in the present circumstances, as the claim amendments were suggested by the Examiner and do not raise new issues requiring further consideration and/or search.

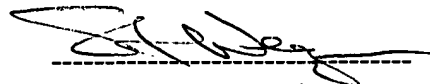
Entry and consideration of the present amendment, reconsideration of the outstanding Office Action, and allowance of the present application and all of the claims therein are respectfully requested and now believed to be appropriate. Applicants have made a sincere effort to place the present invention in condition for allowance and believe that they have now done so.

Any amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should the Examiner have any questions or comments regarding this response, or the present application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,

Hwee Hwa PANG et al.



Bruce H. Bernstein
Reg. No. 29,027

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GREENBLUM & BERNSTEIN, P.L.C.
1950 Roland Clarke Place
Reston, VA 20191
(703) 716-1191